

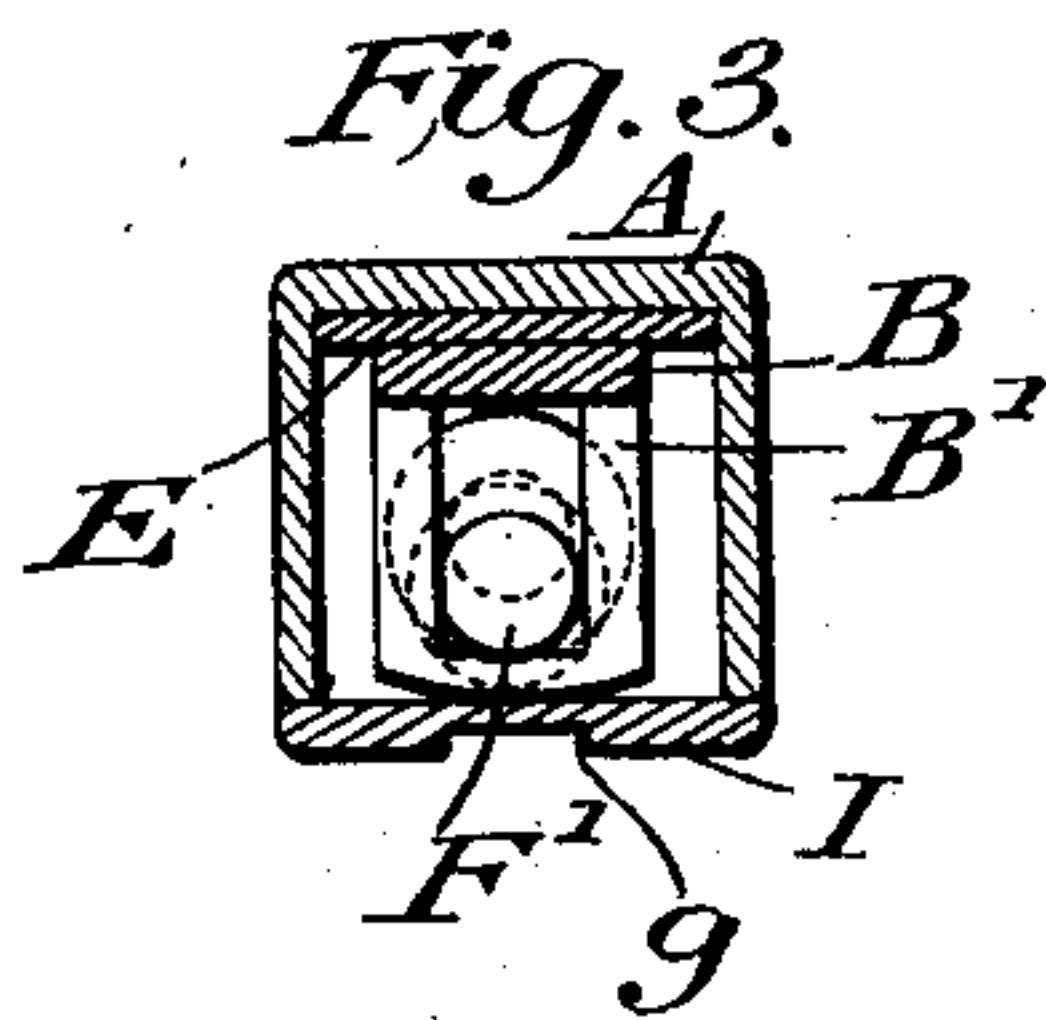
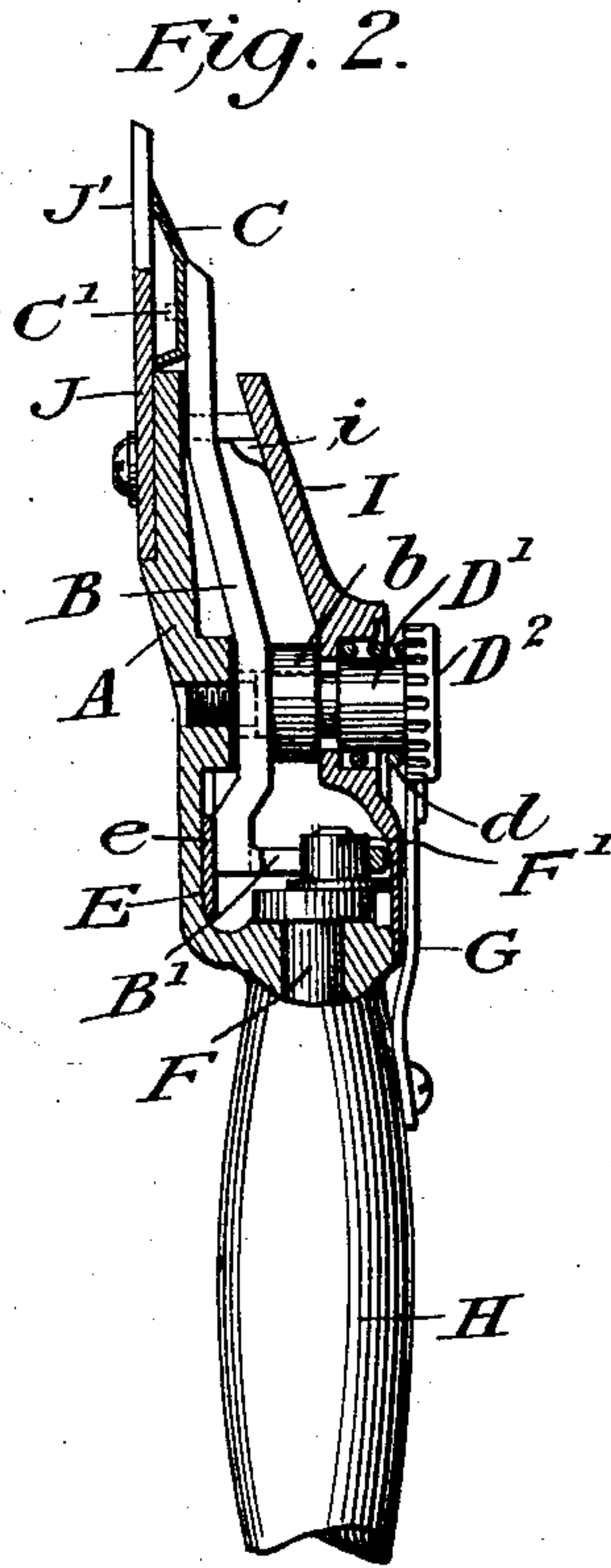
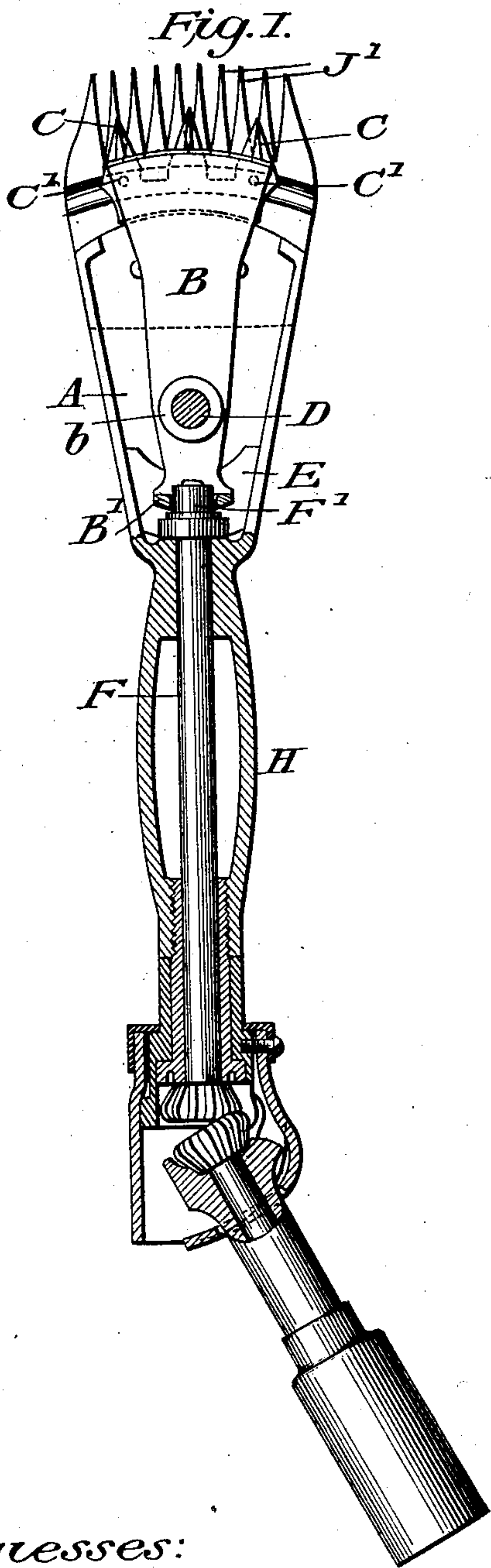
No. 678,225.

Patented July 9, 1901.

B. P. CLARK.
ANIMAL SHEARS.

(Application filed Nov. 6, 1899.)

(No Model.)



Witnesses:

George H. Moore

Chas. J. Rathjen

Inventor:

Bainbridge P. Clark.
by Gifford & Bull
attys

UNITED STATES PATENT OFFICE.

BAINBRIDGE P. CLARK, OF CHOTEAU, MONTANA.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 678,225, dated July 9, 1901.

Application filed November 6, 1899. Serial No. 735,927. (No model.)

To all whom it may concern:

Be it known that I, BAINBRIDGE P. CLARK, a citizen of the United States, and a resident of Choteau, in the county of Teton and State of Montana, have invented certain new and useful Improvements in Animal-Shears, of which the following is a specification.

My invention relates to an improvement in animal-shears, and comprises novel features, which will be hereinafter pointed out in the claims.

Reference is to be had to the accompanying drawings, in which similar letters of reference refer to the same parts in the different figures.

Figure 1 is a sectional plan of my device. Fig. 2 is a section taken in a plane at right angles to that of Fig. 1, and Fig. 3 is a cross-section taken through the casing.

The drawings accompanying this specification illustrate my invention in the form which is now preferred by me. It will, however, be evident that parts of my invention may be varied in form and structure without departing from the spirit of it.

The shears are of that general form in which two toothed cutting members are employed having their faces in contact and having a relative reciprocating or vibrating motion. One of these members, which I herein call a "comb," consists of a plate J, which has a series of teeth J' formed at one end thereof and is secured to the bottom of the casing or frame A of the device so that its teeth project at one end of the casing. The other cutting member consists of a plate C, provided with teeth which are sharpened at their edges, and is operated to give a reciprocating or oscillating movement, with its face in contact with the face of the comb.

The casing A in the form herein shown is of a box-like construction, open at the top and at one end. The top I normally closes the upper side of the casing, but leaves the end open to accommodate the vibrating lever B. By reference to Fig. 1, in which the device is shown with the cover removed, it will be seen that at the open end, through which the lever B projects, the side walls of the case extend inwardly a slight distance. The top I is provided with downwardly-projecting lugs, (shown in Fig. 2,) which are so located as

to fit snugly within the corners formed by the side walls of the case and said slight inward projection of the end wall, and thus to hold case and cover against lateral or longitudinal displacement, while leaving the cover free to rise from the case. The lever B is mounted upon a combination pivot and tension bolt D, which passes through holes in the top and lever and screws into the casing and, in conjunction with its lugs, holds the top in place. The lever at the point where it receives the bolt is preferably provided with a boss or sleeve b, which serves to give a longer bearing upon the bolt and also to engage the under surface of the top I. This latter result might be obtained if the sleeve b were separate and interposed between lever and top or if the sleeve were connected to the top. The top should, however, be made to engage the lever either directly or indirectly to enable the bolt D to be used as a tension-bolt. The hole in the top through which the bolt passes is of such size that the bolt does not bear directly upon the top to hold it down upon the casing. A socket is provided about the bolt receiving the tension-spring d, said spring bearing upon the under surface of the bolt-head D² and a flange at the bottom of said socket. The edge of the bolt-head is notched and a locking-spring G provided, having teeth adapted to enter the notches to lock the bolt against turning. The spring G consists of a flat plate secured by one end to the casing and having its toothed free end engaging the notched or toothed edge of the bolt-head. The casing is preferably provided with a groove g near the bolt, permitting depression of the bar to free the bolt. At its outer end the lever is secured to the movable cutting-blade C in such a manner that the two may be quickly and readily separated for cleaning when desired. The means herein shown consists of two pins C', which may be mounted upon either the lever or the cutting-blade and enter corresponding holes in the other. With the sheet-metal construction of the cutting-blade herein shown the pins would most naturally be upon the lever B. At its inner end the lever is provided with a bearing-surface e, which engages a similar surface upon the casing, preferably a thin plate E, of steel, is inserted at this point to receive the wear.

This end of the lever has an upturned section B', which is slotted to receive a crank-pin F', carried on a rotatable shaft F. Rotation of this shaft will give the lever an oscillating motion and cause the cutting-blade C to be moved back and forth over the surface of the comb J, thus cutting any hair or wool which might come between them.

The construction described makes it possible to separate the parts to clean them or for any other purpose by simply removing the single bolt D. This does not require any tools, as the head of the bolt is of such size and projects so that it may be readily engaged by the fingers.

There are only four removable parts, none which are so small as to be easily lost, the spring d being secured by one end to the bolt D. It is thus feasible for the party using the device to take it apart and clean it when it becomes clogged or gummed up, as frequently happens. The convenience and usefulness of the tool are therefore much enhanced. The simplicity of its construction and the small number of its parts also contribute to cheapness of manufacture and durability.

It is evident that the details of construction might be materially changed from that shown in the drawings without changing the essential features of my invention or departing from the spirit thereof. The particular construction herein shown is simply given as an illustration of the form now preferred by me. I do not, therefore, wish to be limited to the particular form herein shown where equivalent constructions may be employed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An animal-shear comprising a case having a comb secured thereto, a lever pivoted to vibrate in the case, a cap or cover having guiding engagement with the casing permitting vertical movement and preventing side movement thereon, a cutter carried by the lever and cooperating with the comb, and a single bolt passing through the cap and lever into the casing and securing all the parts together and acting as a pivot and tension bolt for said lever, substantially as described.

2. An animal-shear comprising a casing hav-

ing a comb secured thereto, a lever pivoted to vibrate in the casing, a cutter carried by the lever and cooperating with the comb, a cap covering the lever and having vertically-slidable engagement with the casing, a single bolt adapted to secure all said parts together and to also act as a pivot and tension bolt for said lever and a spring interposed between the bolt head and cap and adapted to hold the cutter and comb in contact, substantially as described.

3. An animal-shear comprising a casing having a comb secured thereto, a lever pivoted in the casing, a detachable cutter carried by said lever and cooperating with the comb, a cap or cover having guiding engagement with the casing and permitting vertical movement thereon, but preventing side movement, said casing yieldingly bearing upon said lever to hold the two cutting members in contact, a combined pivot, tension and securing bolt for said cap and lever, and a spring between bolt and cap, substantially as described.

4. In an animal-shear the combination with a casing, a comb carried thereby, a vibrating lever, a cutter carried by said lever and a cap or cover for said casing, of a combined tension and retaining bolt for said parts removably screwing into the casing whereby upon the removal of said bolt the parts of the device are freed and may be disengaged from each other, substantially as described.

5. An animal-shear comprising a casing having a cutting member thereon, a removable cap, and a lever within the casing carrying a cooperating cutting member, a combined pivot and tension bolt passing through cap and lever, said cap and lever having engaging bosses surrounding the pivot-pin, the cap being exteriorly recessed about the pin, and a spring in said recess beneath the bolt-head, and holding the cap and lever down with a yielding pressure.

In testimony whereof I have hereunto affixed my signature this 31st day of October, 1899.

BAINBRIDGE P. CLARK.

Witnesses:

H. J. SKINNER,
JOHN A. SWEAT.